



## Climate change and postglacial human dispersals in southeast Asia

---

**Author(s):** Soares P, Trejaut JA, Loo JH, Hill C, Mormina M, Lee CL, Chen YM, Hudjashov G, Forster P, Macaulay V, Bulbeck D, Oppenheimer S, Lin M, Richards MB  
**Year:** 2008  
**Journal:** Molecular Biology and Evolution. 25 (6): 1209-1218

---

### Abstract:

Modern humans have been living in Island Southeast Asia (ISEA) for at least 50,000 years. Largely because of the influence of linguistic studies, however, which have a shallow time depth, the attention of archaeologists and geneticists has usually been focused on the last 6,000 years--in particular, on a proposed Neolithic dispersal from China and Taiwan. Here we use complete mitochondrial DNA (mtDNA) genome sequencing to spotlight some earlier processes that clearly had a major role in the demographic history of the region but have hitherto been unrecognized. We show that haplogroup E, an important component of mtDNA diversity in the region, evolved in situ over the last 35,000 years and expanded dramatically throughout ISEA around the beginning of the Holocene, at the time when the ancient continent of Sundaland was being broken up into the present-day archipelago by rising sea levels. It reached Taiwan and Near Oceania more recently, within the last approximately 8,000 years. This suggests that global warming and sea-level rises at the end of the Ice Age, 15,000-7,000 years ago, were the main forces shaping modern human diversity in the region.

**Source:** <http://dx.doi.org/10.1093/molbev/msn068>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Extreme Weather Event, Human Conflict/Displacement

**Extreme Weather Event:** Flooding

#### Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

#### Geographic Location:

resource focuses on specific location

Non-United States

**Non-United States:** Asia

# Climate Change and Human Health Literature Portal

**Asian Region/Country:** Other Asian Region

**Other Asian Region:** Island Southeast Asia (ISEA)

**Health Impact:** ☒

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

**Resource Type:** ☒

format or standard characteristic of resource

Research Article

**Timescale:** ☒

time period studied

Historical